



January 31, 2022

Des Gillen
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BP-Husky Refining LLC
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EES Case Management Unit
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ # 90-5-2-1-09244/2

Director, Air Enforcement Division
Office of Civil Enforcement (2242A)
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Office of Regional Counsel
U.S. EPA, Region 5
77 West Jackson Blvd. (C-14J)
Chicago, IL 60604

Ohio EPA
Division of Air Pollution Control
50 West Town Street, Suite 700
Columbus, Ohio 43216-1049
Attention: James Kavalec, Manager
Compliance and Enforcement

City of Toledo
Division of Environmental Services
348 South Erie Street
Toledo, Ohio 43604 Toledo, Ohio 43604
Attention: Karen Granata, Administrator

Re: United States of America, et.al. v. BP Products North America Inc. and
BP-Husky Refining LLC
Northern District of Ohio, Western Division
Civil Action No. 3:20CV190
2021 Annual LDAR Compliance Status Report

NO EPA ACTION REQUIRED: Information is being submitted for information purposes only.

In accordance with Part IX and Appendix A, Part N, ¶ 34-36 of the referenced Consent Decree, attached is the LDAR compliance status report.

I certify under penalty of law that I have examined and am familiar with the information in the enclosed document(s), including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(3) of the Clean Air Act and 18 U.S.C. Sections 1001 and 1341.

Regards,

DocuSigned by:
Des Gillen
90F20640AD13450...

Des Gillen
President - BP-Husky Refining LLC

cc: eescdcopy.enrd@usdoj.gov
Re: DJ # 90-5-2-1-09244/2

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Consent Decree Annual LDAR Compliance Status Report

Introduction:

The purpose of this document is to fulfil the Appendix A, Part N, ¶ 34-36 LDAR reporting requirements of the BP-Husky Refining LLC (BPH) Consent Decree. This report covers the time period of January 1, 2021, through December 31, 2021. Until termination of this Consent Decree, each subsequent report will be due on January 31st and will cover the prior 2 half years.

Report Outline

The format of this report follows a process where Paragraphs from the Consent Decree which include reporting requirements for BPH are quoted in a text box, followed by a statement of applicability and reporting as appropriate.

I. Compliance Status Reports

On the dates and for the time periods set forth in Paragraph 35 of this Appendix, the Defendants shall submit, in the manner set forth in Section IX (Reporting Requirements) of the Consent Decree, a Compliance Status Report regarding compliance with this LDAR Program. The Compliance Status Report shall include the following information with respect to the relevant reporting period:

II. LDAR Personnel – Appendix A, Part N: Reporting ¶ 34.a.

The number of personnel assigned to LDAR functions at the Toledo Refinery and the percentage of time each person dedicated to performing his/her LDAR functions;

The Job Title of the individuals with LDAR responsibilities at the Toledo Refinery have been provided in the following table. The table includes individuals responsible for day-to-day LDAR compliance, including tagging, monitoring, administration, quality assurance, & quality control. The table does not include individuals that are responsible for purchasing, operating, or maintaining LDAR equipment.

Company	Number of Personnel	Job Title	Time Dedicated (%)
BP	1	LDAR Coordinator	50
Contractor	1	LDAR Site Supervisor	95
Contractor	1	LDAR ECS Database Administrator	95
Contractor	4	LDAR Technician	95
BP	6	Asset Coordinator	5
BP	5	Production Engineer	5
Contractor	1	LDAR Project Manager	50
BP	1	Environmental Manager	5

III. Non-compliance – Appendix A, Part N: Reporting ¶ 34.b.

An identification and description of any non-compliance with the requirements of this Appendix;

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
1/14/2021	PSV 01 pilot/bellows was monitored with a reading above 500 ppmv as detected by Method 21.	It is believed that internal damage occurred in the PSV leading to the leak.	PSV was replaced.	1/19/2021
2/18/2021	There were 2 open-ended lines visually identified by operations in the high line section of the Reformer 3 unit.	As these were in the high lines and not easily accessible, it is assumed that these were left unplugged during a previous maintenance event.	Operations required a day to gain access to the high elevation and then added plugs.	2/19/2021
3/3/2021	PSV 411 pilot/bellows was monitored with a reading above 500 ppmv as detected by Method 21.	It is believed that the pilot sense line froze due to cold weather, which caused PSV 411 to lift. Cold weather is assumed to have damaged the PSV and caused the leak.	PSV was replaced with a more reliable balanced bellows type PSV. Additionally, inlet & outlet block valves were added to the PSV to allow for the PSV to be replaced without having to take the entire unit offline.	3/17/2021
3/20/2021	PSV 1250 bellows was monitored with a reading above 500 ppmv as detected by Method 21.	Following re-routing operations, the PSV lifted. Monitoring of the PSV following the lift discovered it was leaking.	PSV was removed from VOC service on 3/25/2021 and replaced on 3/27/2021.	3/25/2021

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
5/21/2021	There were 2 open-ended lines visually identified by operations on a pump vent and drain.	The vent and drain was designed and installed prior to the current rules being in place. Additionally, this is in heavy liquid service, so it is not frequently monitored by LDAR technicians.	Piping/tubing removed and plugs installed.	5/21/2021
8/11/2021	There were 5 open-ended lines (OEL) visually identified on 3 pumps in the Crude/Vac 1 unit.	These were discovered as part of a site wide OEL audit for pumps in heavy liquid service.	Operations verified setup and added a plug before the end of the next shift on 8/12/2021 to resolve 1 OEL. The other 4 had a work order and engineering package created. Maintenance and repairs were scheduled to be completed by 12/31/2021, however, due to design issues the engineering package was required to be redesigned. Maintenance and repairs will be completed by 3/31/2022	In Progress
11/4/2021	There was 1 valve in the Isocracker 2 unit that had not been monitored.	The valve appeared new and was likely added to replace an existing valve.	The valve was tagged, monitored, and entered into the LeakDAS database upon discovery.	11/4/2021

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
11/4/2021	There was 1 open-ended line (OEL) discovered in the Reformer 3 unit.	While conducting an internal audit, a visual leak was identified using an FLIR camera on a drain pipe that empties to the sewer. While the pipe did have two upstream valves that were closed, the FLIR detected VOC material that was passing through. This section of pipe is not routinely used.	Operations installed a blind between the 2 valves to close the open ended line.	11/16/2021
12/9/2021	There was 1 valve in the FCCU which was untagged and had not been monitored.	LDAR technician discovered the valve which was under insulation.	Valve was tagged, monitored, and entered into the LeakDAS database upon discovery.	12/9/2021
12/13/2021	There was 1 valve which did not receive Repair Verification Monitoring by the end of the next day after a repair attempt. Repair made Saturday 12/11/21 and not checked by end of 12/12/21.	The repair notification was made using email instead of the weekend on-call phone, so the LDAR technician did not know to retest until Monday morning.	The repair verification monitoring was completed on the following day, 12/13/21. The importance of using the LDAR technicians on-call phone for weekend repairs was also communicated.	12/13/2021

IV. Problems – Appendix A, Part N: Reporting ¶ 34.c.

An identification of any problems encountered in complying with the requirements of this Appendix;

There were no problems encountered in complying with the requirements of Appendix A – LDAR program.

V. Commercial Unavailability – Appendix A, Part N: Reporting ¶ 34.d.

The information required in Paragraphs 20 and 22 of this Appendix;

¶ 20. Commercial Unavailability of a Certified Low-Leaking Valve or Certified Low-Leaking Valve Packing Technology

During the reporting period, the following valves were not able to be replaced or repacked due to commercial unavailability:

Valve	Assessment Date	Vendors Contacted	Documentation
There were no times when valves were not replaced or repacked with a Certified Low-Leaking Valve or Certified Low-Leaking Valve Packing Technology during this reporting period.			

VII. Valve Replacement/Improvement Report – Appendix A, Part N: Reporting ¶ 34.d.

The information required in Paragraphs 20 and 22 of this Appendix;

¶ 22. Valve Replacement/Improvement Report.

In each Compliance Status Report due under Part N of this Appendix, the Defendants shall include a separate section in the Report that:

- (i) describes the actions it took to comply with this Part G; and
- (ii) identifies the schedule for any future replacements or upgrades. For the first Compliance Status Report due after the date twenty-four (24) months from the Effective Date, the Defendants shall certify that to the best of their knowledge, after due inquiry, there remains in inventory at the Defendants' Toledo Refinery no replacement valves or valve packing for Covered Equipment, other than
 - (i) those that meet the definition of "Certified Low-Leaking Valve" and/or "Certified Low- Leaking Valve Packing Technology," or
 - (ii) valves for which a Commercial Unavailability determination is applicable, pursuant to Paragraph 20 hereof.

BPH has worked with valve vendors to acquire "Certified Low-Leaking Valve" and/or "Certified Low- Leaking Valve Packing Technology" and has implemented a process to procure only valves that meet these requirements since the effective date of the Consent Decree with a goal of replacing all the valve inventory with these required valves by March 25, 2022 unless a Commercial Unavailability determination as been determined pursuant to Paragraph 20 in Appendix A. Once the valve inventory has been established, a certification statement will be included in the January 31, 2023 compliance status report.

VIII. LDAR Training – Appendix A, Part N: Reporting ¶ 34.e

Identification of any LDAR training conducted in accordance with Part I of this Appendix;

By no later than six (6) months after the Effective Date, the Defendants shall have ensured that all personnel (whether employed by the Operator of the Toledo Refinery or contractors) responsible for LDAR monitoring, maintenance of LDAR monitoring equipment, LDAR repairs, and/or any other duties generated by the LDAR program have completed training on all aspects of LDAR that are relevant to the person's duties. By that same time, the Defendants shall develop a training protocol to ensure that refresher

training is performed once per calendar year and that new personnel are sufficiently trained prior to any involvement in the LDAR program.

All personnel responsible with any aspect of the LDAR program were trained by September 25, 2020. An electronic training program has been developed and is delivered to new personnel and each calendar year as refresher training.

IX. QA/QC Daily Certification by Monitoring Technicians – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

25. Daily Certification by Monitoring Technicians. Commencing no later than the Effective Date, on each Day that monitoring occurs, at the end of such monitoring Day to the extent practical but in no case later than the next work day for the monitoring technician, the Defendants shall ensure that each monitoring technician certifies that the data collected represents the monitoring performed for that Day by requiring the monitoring technician to sign a form that includes the following certification:

On [insert date], I reviewed the monitoring data that I collected on [insert date] and, to the best of my knowledge and belief, the data accurately represents the monitoring I performed on that date.

In lieu of a form for each technician for each Day of monitoring, a log sheet may be created that includes the certification that the monitoring technicians would date and sign each Day that the technician collects data.

Monitoring technicians certify that the data collected represents the monitoring performed for the day by signing a log sheet at the end of the monitoring day or the next working day that contains the certification language:

“On the date noted below, I reviewed the monitoring data that I collected on the date noted below and, to the best of my knowledge and belief, the data accurately represents the monitoring I performed on that date. [Insert date]”

The following table lists deviations that was discovered regarding the LDAR technician certification:

Date	Deviation	Corrective Actions	Date Resolved
There were no deviations during this reporting period.			

X. QA/QC MOC Process – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

26. Commencing by no later than the first full calendar quarter after the Effective Date, the Defendants shall undertake the following:
- a. Maintain their Management of Change (“MOC”) processes to continue to require the following:
 - i. For each MOC that involves the addition of a component or components subject to LDAR requirements, an action item will be generated for the LDAR coordinator to instruct an LDAR technician to tag each component affected by the MOC and enter it into the electronic LDAR database (registry); and
 - ii. The action item required pursuant to (i) may not be closed with respect to a particular MOC until an LDAR technician has confirmed and reported to the LDAR Coordinator that the component or components have been tagged and entered into the LDAR database (registry).

Each MOC that involves the addition of a component or components subject to LDAR requirements, an action item is generated to tag each new component and enter it into the electronic LDAR database. The action item is not closed until after the components have been tagged and added to the LDAR database. The following table lists deviations that was discovered in the MOC processes:

Date	Deviation	Corrective Actions	Date Resolved
There were no deviations during this reporting period.			

XI. QA/QC Process Unit Walk-Throughs – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

26. Commencing by no later than the first full calendar quarter after the Effective Date, the Defendants shall undertake the following:

- b. An LDAR-trained employee or contractor of the Defendants, who does not serve as an LDAR monitoring technician on a routine basis, shall conduct process unit walk-throughs, at unannounced times, to assure that all Covered Process Units are reviewed at least once per year, and in the course of those walk-throughs conduct spot checks of Equipment to verify that the Equipment checked is included in the LDAR database and is properly tagged.

An LDAR-trained employee or contractor of the Defendants, who does not serve as an LDAR monitoring technician on a routine basis, has conducted process unit walk-throughs, at unannounced times, to assure that all Covered Process Units are reviewed at least once per year, and in the course of those walk-throughs conducted spot checks of Equipment to verify that the Equipment checked is included in the LDAR database and is properly tagged. In addition, the site conducted a 100% P&ID review of all covered process units from March 2021 through August 2021. This review was not required by the Consent Decree and was voluntarily undertaken by the Refinery to further enhance compliance.

The following table lists equipment that was discovered in the field walkthroughs and enhanced P&ID audit that were not properly tagged and not included in the LDAR database.

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
3/29/2021	290 untagged valves found in Isocracker 2 unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	5/3/2021

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
4/1/2021	3 untagged valves found in the DIB Tower that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	4/14/2021
4/1/2021	1 untagged valve found in the Coker Gas Plant that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	6/14/2021
4/1/2021	14 untagged valves found in the East Flare Gas Recovery System (aka Hydrogen Unit) had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	5/7/2021
4/1/2021	43 untagged valves found in the Crude/Vac 1 unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	6/14/2021
4/1/2021	139 untagged valves found in the Reformer 3 unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	4/15/2021
4/1/2021	27 untagged valves found in the Alky 1 unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	5/18/2021
4/1/2021	54 untagged valves found in the Sat Gas Plant that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	5/4/2021
4/1/2021	21 untagged valves found in the Cat Poly unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	5/24/2021

Date	Description of Non-Compliance	Cause	Corrective Action	Date Corrected
4/1/2021	45 untagged valves found in the BGOT unit that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	4/26/2021
4/1/2021	23 untagged valves found in the FCCU that had not been monitored.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	6/29/2021
7/1/2021	16 untagged valves found in the Coker 3 unit that had not been monitored	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	7/24/2021
7/1/2021	9 untagged valves found in the Isocracker 2 unit that had not been monitored. Valves located on an adjoining units P&ID's but physically located in the Isocracker 2 unit.	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	8/10/2021
7/1/2021	2 untagged valves found in the Coker 2 unit that had not been monitored	Valves identified during the enhanced P&ID review of all process units.	The valves were tagged, entered into the LeakDAS database, and monitored.	7/7/2021

XII. QA/QC LDAR Database Electronic Records Review – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

26. Commencing by no later than the first full calendar quarter after the Effective Date, the Defendants shall undertake the following:
- c. On a quarterly basis, review the LDAR database’s electronic records to:
 - (i) verify that Covered Equipment was monitored at the appropriate frequency;
 - (ii) verify that proper documentation and sign-offs have been recorded for all Covered Equipment placed on the shutdown or DOR list;
 - (iii) verify that repairs have been performed within the required timeframe;
 - (iv) review monitoring data and Covered Equipment counts (e.g., number of pieces of Covered Equipment monitored per Day) for feasibility and unusual trends; and
 - (v) verify that proper calibration records and monitoring instrument maintenance information are stored and maintained.

The LDAR database electronic records have been reviewed quarterly to verify:

- (i) Covered Equipment was monitored at the appropriate frequency;
- (ii) proper documentation and sign offs have been recorded for all Covered Equipment placed on the shutdown or DOR list;
- (iii) repairs have been performed within the required timeframe;
- (iv) monitoring data and Covered Equipment counts (e.g., number of pieces of Covered Equipment monitored per Day) has been reviewed for feasibility and unusual trends; and
- (v) proper calibration records and monitoring instrument maintenance information are stored and maintained.

The following table lists deviations discovered during the database electronics record review:

Deviation	Corrective Action	Corrective Action Completion Date	Quarter Review Conducted
There were no deviations during this reporting period.			

XIII. QA/QC Spot Checks of LDAR Program Records – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

26. Commencing by no later than the first full calendar quarter after the Effective Date, the Defendants shall undertake the following:
- d. On a quarterly basis, at unannounced times, conduct spot checks of LDAR program records to verify that those records are maintained as required;

Spot checks of the LDAR program records have been conducted on a quarterly basis, at unannounced times. The following deviations (if any) were identified during the spot checks.

Date	Deviation	Corrective Actions	Date Resolved
There were no deviations during this reporting period.			

XIV. QA/QC Observations of LDAR Monitoring Technicians – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

26. Commencing by no later than the first full calendar quarter after the Effective Date, the Defendants shall undertake the following:
- e. On a quarterly basis, at unannounced times, observe each LDAR monitoring technician in the field to ensure monitoring is being conducted as required.

Observations of each LDAR monitoring technician in the field was conducted on a quarterly basis, at unannounced times, to ensure monitoring is being conducted as required. The following deviations were identified during the observations:

Date	Deviation	Corrective Actions	Date Resolved
There were no deviations during this reporting period.			

XV. QA/QC LDAR Program Review Log – Appendix A, Part N: Reporting ¶ 34.f.

Any deviations identified in the QA/QC performed under Part J of this Appendix A, as well as any corrective actions taken under Part K;

Part J: Quality Assurance (“QA”)/Quality Control (“QC”)

The Defendants shall correct any deficiencies detected or observed as soon as practicable. The Defendants shall maintain a log that:

- (i) records the date and time that the reviews, verifications, and observations required by this Paragraph were undertaken; and
- (ii) describes the nature and timing of any corrective actions taken.
- (iii)

A log is being maintained that:

- (i) Records the date and time that the reviews, verifications, and observations required by this Paragraph were undertaken; and
- (ii) Describes the nature and timing of any corrective actions taken.

XVI. LDAR Audit Results and CAP Status – Appendix A, Part N: Reporting ¶ 34.g.&h.

A summary of LDAR audit results for audits that were completed during reporting period, including specifically identifying all deficiencies; and

The status of all actions under any CAP that was submitted pursuant to Part K of this Appendix during the reporting period.

An LDAR audit conducted by an independent contractor with expertise in LDAR program requirements was completed on March 17, 2021, following the on-site portion of the audit conducted from November 17, 2020 through November 19, 2020. The audit covered the time period of July 1, 2018 through September 30, 2020. A preliminary Corrective Action Plan (CAP) was completed on April 16, 2021 and a final CAP was completed on June 15, 2021 and submitted on July 15, 2021.

All deficiencies along with the corrective actions identified in the CAP that was submitted pursuant to Part K of Appendix A are shown in the following table:

Finding No.	Citation	Unit(s)	Findings	Corrective Action	Correction Date
1	CD Appendix A, Part G.19.a	Facility	Purchasing Procedures: Facility did not have purchasing procedures that evaluate the availability of valves and valve packing that meet the requirements for Certified Low-Leaking Valve or Certified Low-Leaking Valve Packing Technology.	To work with local and corporate procurement to put in place written purchasing procedures. Update: Created document "Toledo Refinery Overall Low-E Compliance Guidelines and Procedures".	Completed 6/15/2021

Finding No.	Citation	Unit(s)	Findings	Corrective Action	Correction Date
2	40 CFR 60.482-9a(f)	Various	Missed DOR Monthly Monitoring: 3 monthly monitoring events were not recorded in the database for components that were placed on DOR.	Updates made to LDAR Database to fix the scheduling issue prior to the audit. Also instituted a monthly monitoring checklist for components on DOR prior to the audit to have a double check of the LDAR Database scheduling feature.	Completed 11/19/2020
3	40CFR 60.482-7a(d)2	East Alstom Boiler	Late 1st Attempt at Repair: Failure to perform first repair attempt within 5 days for one control valve in East Alstom Boiler Unit.	As this was human error, reviewed the importance of properly communicating leaks to ensure repairs can be made on time. Increased communication between LDAR Data Administrator and LDAR Site Supervisor to provide a double check of leaks.	Completed 11/19/2020
4	40 CFR 60.486-a(c)(3)	Various	Leak Repair Records: Failure to maintain records of repair method applied for 17 components.	To comply with the new repair verification section of the 2020 Consent Decree, increased use of email for tracking and reporting repair data between LDAR staff and those making & scheduling repairs. Repair method is now almost always included in the email communication and if it is not it is being asked for prior to closing out.	Completed 11/19/2020

Finding No.	Citation	Unit(s)	Findings	Corrective Action	Correction Date
5	40 CFR 60.486-a(b)(1)	West Tank Farm	DOR Leak Tag: Failure to attach a leak tag on one delay of repair valve located in the West Tank Farm (Tag 19076)	Placed a new leak tag on the valve upon discovery.	Completed 11/19/2020
Comparative Monitoring	CD Appendix A, Part K.29	Unsat Gas Plant & LPG	Comparative monitoring resulted in above threshold values in the Unsat Gas Plant (valves & pumps) and the LPG Unit (valves).	<p>Conduct a review of technicians training and knowledge of M21. LDAR Coordinator to conduct unannounced field audits and work with the LDAR site supervisor to take part in unannounced shadow monitoring for each technician. Evaluate leaking equipment field setup and leak history.</p> <p>Update: Field Setup & History for Unsat: This unit had 1 valve and 2 pump leaks in the audit. -One pump leak (tag 208235.1) was a connector which is not part of routine pump monitoring. -The other pump (tag 208228) had a leak in October (10/1/2020) of 4290 ppm, which was repaired with a follow-up reading on 10/2/2020 of 592 ppm. The routine monitoring in November (11/6/2020) was 609 ppm. -The valve (tag 122103) was scheduled to have routine monitoring with the LDAR tech in the unit on the day of the audit finding. No leaks on this valve in 2020.</p> <p>Field Setup & History for LPG: This unit had 2 valve leaks in the audit.</p>	Completed 6/15/2021

Finding No.	Citation	Unit(s)	Findings	Corrective Action	Correction Date
				<p>-One valve (tag 200104) had an earlier leak on 7/23/2020 of 1198 ppm that was repaired on the same day. No other leaks in 2020.</p> <p>-The other valve (tag 219583) had no other leaks in 2020.</p> <p>Additional actions:</p> <p>-LDAR contractor to rotate technician's unit assignments for each monitoring frequency (month for pumps/quarter for valves).</p> <p>-LDAR contractor conducted refresher M21 Field training and will conduct annually or when onboarding new hires.</p> <p>-BP Consent Decree training for LDAR Contractor updated to include the importance of accurate data, the importance of the daily certification that each technician signs, and the additional quality control steps like quarterly forensics and comparative monitoring that will identify anomalies.</p> <p>-LDAR Contractor conducted comparative monitoring on current technicians via a QA/QC process utilizing a regional specialist with no findings; will repeat this process periodically.</p>	